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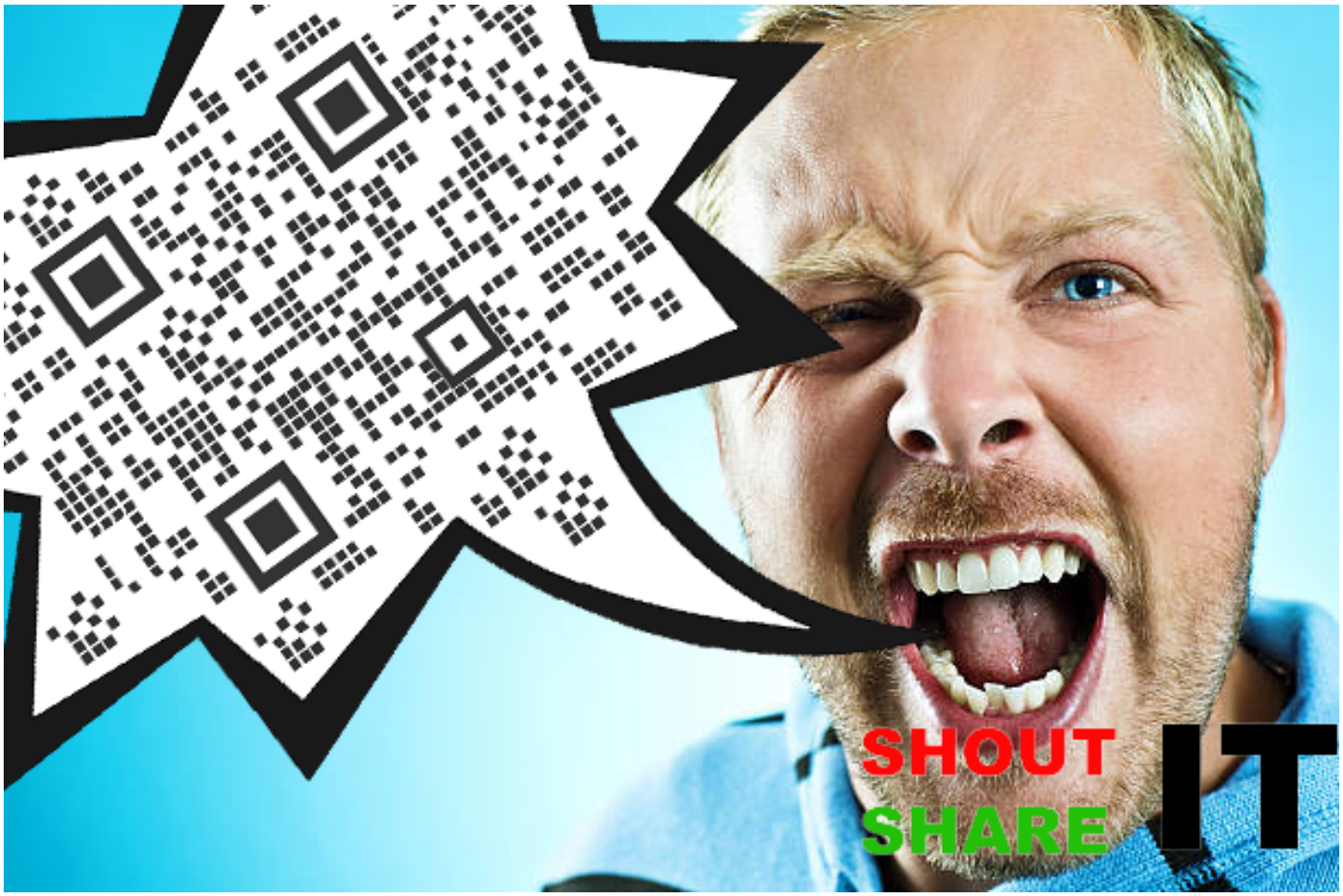
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U. S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
Bureau of Entomology and Plant Quarantine

CHINCH BUG

Background shows chinch bugs leaving maturing wheat to feed on young corn. *A*, Life stages of the insect (greatly enlarged); *a*, eggs in wheat sheath; *b*, adult bug; *c*, red nymph; and *d*, black nymph.

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Picture Sheet No. 27

See other side for information on chinch bug development and on control.

THE CHINCH BUG

(*Blissus leucopterus*)

The chinch bug injures small-grain plants (barley, wheat, rye, and oats), corn, sorghum, and other plants that belong to the grass family.

Most of the injury is caused by the young bugs, or nymphs. They suck juice from the plants, which wilt and die.

DEVELOPMENT

The adult bugs overwinter chiefly in clump-forming grasses, in hedgerows, in fence rows, and at edges of woodland.

In the spring the bugs fly from these places and settle in fields of small grain, where they mate. The first generation of the growing season hatches from eggs laid on the plants, in the ground near them, or on the roots.

As the grain ripens, the plants dry up. The bugs then move to a nearby field of corn or sorghum. The old bugs fly there. In northern areas most of the young bugs are wingless at migration time, and crawl to the new crop. In the South the bugs develop earlier; most of them migrate on the wing.

The old bugs die soon after the migration. The young ones reach maturity on the new crop. They then mate, and the eggs of a second generation are laid on or near the host plants. The bugs of the second generation feed on these plants.

The adults of the first generation of the growing season die as the summer advances. In the fall the second-generation adults fly to winter quarters.

There are a few variations in this general pattern of seasonal development. In the South the overwintered bugs may fly direct to corn or sorghum. They may do so elsewhere if unusually cool weather delays the spring flight. Where the growing season is unusually long, a third generation develops.

CONTROL

IMMUNE OR RESISTANT CROPS.—Plant nongrass crops next to fields of small grain. Plant resistant strains of corn and sorghum.

Legumes are practically immune from chinch bug injury. They also produce shade and dampness, which chinch bugs avoid. When legumes are grown among plants that the bugs attack, the shade and dampness protect those plants.

OTHER CULTURAL PRACTICES.—Chinch bugs reproduce faster on barley than on other small grains. Do not plant this crop when an abundance of chinch bugs is expected.

The bugs seldom attack heavy stands of small grain. They tend to settle where a stand is thin. Anything that produces thick, vigorous growth—such as thorough tillage, ample fertilizer, and timely seeding—reduces injury.

In the South, plant sorghum and corn as early as practical. Do not plant corn too early, however, or the young plants will be damaged by chinch bugs coming from their winter quarters.

BARRIERS.—Several repellents and insecticides are used in making barriers that kill chinch bugs as they crawl from small grain to corn or sorghum.

Experiments by entomologists at the University of Illinois show that excellent results can be obtained by applying dieldrin, one of the new insecticides, to barrier strips. Good barriers can also be made with coal-tar creosote oil (a repellent) and with insecticidal dusts containing DDT or dinitro-*o*-cresol.

SPRAYING AND DUSTING.—Spraying or dusting large fields of small grain to kill chinch bugs is not practical. But insecticides can be used to advantage on border rows of corn or sorghum, on plantings of valuable seed corn, on valuable grasses, and on lawns. Insecticides such as nicotine, rotenone, sabadilla, DDT, chlordane, and toxaphene give good results.

Upon request, your county agent or your State agricultural experiment station will furnish information on chinch bug control. Recommendations vary according to locality. Ask about barriers, insecticides, and resistant strains of corn and sorghum.

CAUTION.—Most insecticides are poisonous to people and to animals. Store insecticides where children and pets cannot reach them. Handle them with care. Give close attention to directions and precautions on the labels.

Issued June 1953

☆ U. S. GOVERNMENT PRINTING OFFICE : 1953 16—68651-1

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